MobiScan® Barcode Generator

User Manual

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Quality Management System

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1 INTRODUCTION

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1.1 MobiScan® Overview

MobiScan® is a tool that enables you to configure Psion mobile computers by scanning barcodes. It is used for the following:

- Configuring the connection between and a Psion computer and the MCC Server.
- Configuring network connection settings on a Psion computer and storing these settings on the MCC Server.
- Configuring network connection settings on a Psion computer.

MCC MobiScan includes two components:

MobiScan Barcode Generator

This application runs on a desktop computer. The MobiScan Barcode Generator requires the following files:

- MobiScan.exe
- Neodynamic.WPF.Barcode.dll
- PdfSharp-WPF.dll

MobiScan Barcode Generator requires the following:

- Microsoft® Windows XP® or later.
- Microsoft .NET Framework 3.5® or later.

MobiScan Agent

This application runs on Psion mobile computers.

MobiScan Agent requires the following:

- Windows Mobile 5.0 or later,
- Windows CE 5.0 or later.

It is installed on all Psion computers that have been shipped after August 2, 2011.

For Psion computers that do not have MobiScan Agent installed, MobiScan Agent can be downloaded from the downloads section on Ingenuity Working at
community.psion.com/downloads/firmwaresoftware__demos/m/mcc/

1.2 Upgrades

Upgrades to both MobiScan Barcode Generator and MobiScan Agent are also available on Ingenuity Working at
community.psion.com/downloads/firmwaresoftware__demos/m/mcc/

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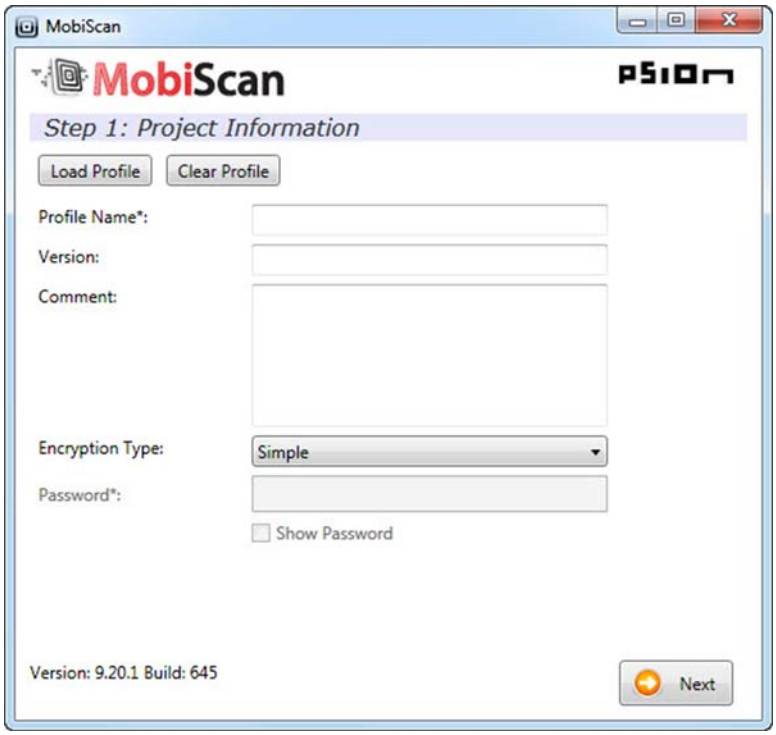
2.1 Create a Barcode Configuration Profile

The steps are as follows:

1. Start the MobiScan Barcode Generator
2. Enter the configuration profile information
3. Create the configuration profile

2.1.1 Start the MobiScan Barcode Generator

On your desktop computer run MobiScan.exe. The following screen is displayed:



2.1.2 Enter the configuration profile information

On the MobiScan Barcode Generator **Project Information** screen complete the fields as follows:

Field Name	Description
Profile Name	The name of the profile you are creating.
Version	This field displays the current version number of the Configuration Profile.
Comment	Optional. A description of this profile.
Encryption Type	**Simple:** Uses a proprietary algorithm to encrypt the data during the generation of barcodes. This option creates the smallest footprint for the barcode. It is the default option and recommended if enhanced security is not required. **AES256 Fixed Password:** Encrypts data with the AES 256 algorithm. This option uses a fixed password. The barcodes can be read by a mobile computer using the MobiScan Agent. **AES256:** Encrypts data with AES 256 algorithm. When using this option, you must enter a password to generate barcodes. This password must also be entered on the mobile computer during configuration.
Password	The password used during AES256 Encryption.

2.1.3 Create the configuration profile

1. For each setting that you want to include in the profile do the following:
   a. On the **Settings** screen click **Add**.
      The **Configure Settings** screen opens.
   b. On the **Type** drop-down list select one of the following:

Setting Type	For information see...
Device Agent Settings	Section 2.2.1 on page 8
Wireless ZeroConfig	Section 2.2.2 on page 10
Summit Wireless Radio	Section 2.2.3 on page 10
Fusion	Not available on Psion computers.
Devicescape Wireless	Section 2.2.4 on page 11
Intermec Wireless	Not available on Psion computers.
Static IP	Section 2.2.5 on page 12
Cellular connection (APN)	Section 2.2.6 on page 12
MobiAssist	Not available on Psion computers.

      The detail configuration fields for the selected setting are displayed.

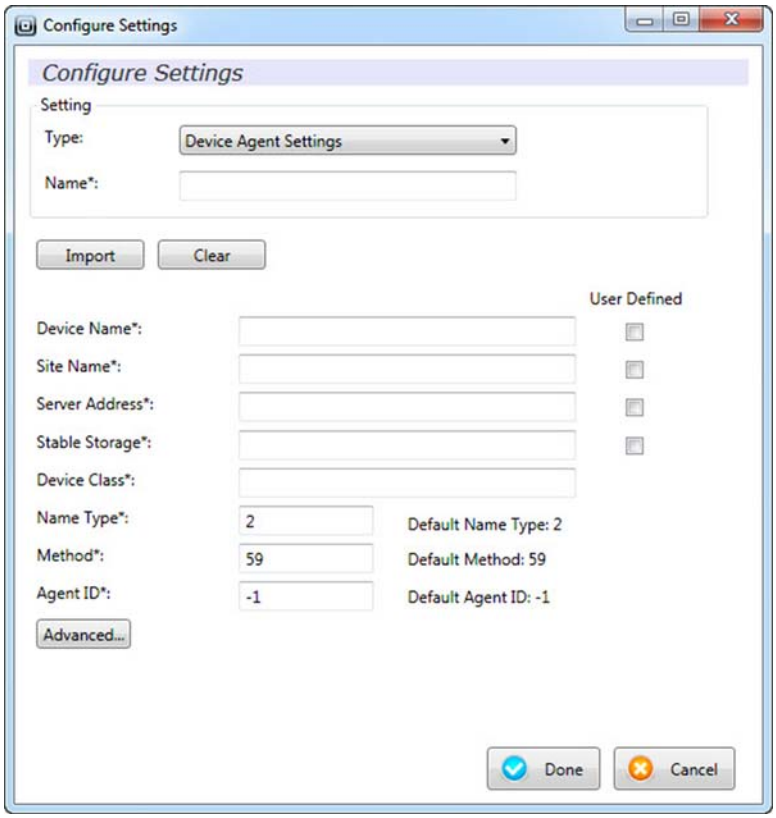
   c. Complete the configuration for the selected setting.
   d. When all the settings are complete, click **Done**.
      The **Complete: Barcode Generated** screen opens.
2. Click **Save As**.
3. Select how you want to save the configuration profile, then select the location where it is to be saved.

Save Option	Description
Save Configuration Profile	Saves to a CP file (.cp). This is the format that is loaded when you click **Load Profile** on the **Project Information** screen.
Save Raw Data	Saves into a DAT file (.dat). Recommended for advanced users only.
Export to PDF	Saves to a PDF file (.pdf). Use this option to email the barcodes.

2.2 Configuration Settings

2.2.1 Device Agent Settings

Installs the MCC Agent on the mobile computer. This enables the mobile computer to communicate with the MCC Server.



There are two ways to fill in this data:

Method 1

This is the recommended method. Click **Import** and select MCSetup.ini as the file to import. If this file is not available, import from pdb.ini.

Method 2

Enter the information manually using values that correspond to those on the MCC Server.

Field Name	Description	Location on MCC Server
Name	The name of this setting.	
Device Name	The name of the mobile computer.	Device Agent Manager, Device name
Site Name	Default is MCC.	Global Settings in Servers tab, Site Name
Server Address	The IP address or name of the MCC Server.	Device Agent Manager, Server Address
Stable Storage	A folder in stable storage on the mobile device where the MCC Agent is to be installed.	Device Agent Manager, Stable Storage
Device Class	The Rule Tag information of the corresponding Add Mobile computer rule.	Summary tab of the Add Devices Rule, Add Device Rule Tag
Name Type	Enter the MCC Agent name type. Default 2. Do not change.	

Field Name	Description	Location on MCC Server
Method	Enter the MCC Agent method number. Always 303.	
Agent ID	The MCC Agent ID. Default -1. Do not change.	

Advanced settings

Field Name	Description
Device ID Type	The device type ID for the MCC Agent.
Agent Name	The name of the MCC Agent. Leave blank.
Retry Delay	Enter the retry interval the MCC Agent will use to connect with the MCC Server. Set to 30000.

2.2.2 Wireless ZeroConfig

Creates a wireless profile for Microsoft Wireless ZeroConfig. This wireless profile, when activated on the device, is set as an active configuration.

Field Name	Description
Action	**Configure Wireless Settings:** Add a wireless profile. **Turn on radio:** Enable the use of wireless radio. **Turn off radio:** Disable the use of wireless radio.
Name	The name of this setting.
Network Name (SSID)	Network name/Service Set Identifier (SSID). (Check **User Defined** to allow the user to enter, or to change, this information.)
This is a mobile computer-to- mobile computer (ad-hoc) connection	Check this for an ad hoc connection.
Authentication	The Authentication type for your network. Options are Open, Shared, WPA, WPA-PSK, WPA2 and WPA2-PSK.
Data Encryption	The Data Encryption for your network. Options are Disabled, and WEP.
Network Key	The Network Key for your network. (Check **User Defined** to allow the user to enter, or to change, this information.)
EAP Type	The Extensible Authentication Protocol (EAP) method. Options are MD5, PEAP, and TLS.
Verify Connection is established before continuing	When selected, it will wait for the connection to be established (which can last for up to 45 seconds). This option is important if you are attempting to connect to the network immediately.
Turn on radio after configuration	When selected, the WiFi radio is turned on after configuring the Wireless ZeroConfig settings.

2.2.3 Summit Wireless Radio

Creates a wireless profile for a Summit radio. This wireless profile, when activated on the device, is set as an active configuration.

Field Name	Description
Name	The name of this setting.
Action	**Configure Wireless Settings:** Add a wireless profile. **Turn on radio:** Enable the use of wireless radio. **Turn off radio:** Disable the use of wireless radio.
Name	The name of your Summit Wireless settings
Config Name	The name of your Summit Wireless Profile. (Check **User Defined** to allow the user to enter, or to change, this information.)
SSID	The Service Set Identifier (SSID) to which radio connects. (Check **User Defined** to allow the user to enter, or to change, this information.)
Encryption Type	The encryption type.
EAP Type	The Extensible Authentication Protocol (EAP) type associated with the profile. Options are EAP types: LEAP, EAP-FAST, PEAP-MSCHAP, PEAP-GTC, EAP-TLS, EAP-TTLS, and PEAP-TLS.
Connects To	The connection setting **Internet** or **Work**.
Verify Connection is established before continuing	When selected, it will wait for the connection to be established (which can last for up to 45 seconds). This option is important if you are attempting to connect to the network immediately.
Turn on radio after configuration	If this option is checked, it will turn ON the WiFi radio of the mobile computer after configuring Summit Wireless settings.

Summit Wireless Radio: Advanced settings

Field Name	Description
Client Name	The name for client mobile computer used for Summit radio.
Power Save	**CAM:** Constantly awake mode **Maximum:** Maximum power savings **Fast:** Fast power save mode
Tx power	The transmit power.
Bit Rate	The bit rate used by radio when interacting with an access point.
Radio Mode	The radio mode used when interacting with an access point.
Auth Type	The authentication type used when associating with an access point.

2.2.4 Devicescape Wireless

Creates a wireless profile for a Devicescape radio. This wireless profile, when activated on the device, is set as an active configuration.

Field Name	Description
Action	**Configure Wireless Settings:** Add a wireless profile. **Turn on radio:** Enable the use of wireless radio. **Turn off radio:** Disable the use of wireless radio.
Name	The name of this setting.
SSID	The Service Set Identifier (SSID) to which radio connects. (Check **User Defined** to allow the user to enter, or to change, this information.)
Auth. Mode	The authentication mode.

Field Name	Description
Encryption	The encryption type.
PSK	The network key.
Connects To	The connection setting **Internet** or **Work**.
Verify Connection is established before continuing	When selected, it will wait for the connection to be established (which can last for up to 45 seconds). This option is important if you are attempting to connect to the network immediately.
Turn on radio after configuration	If this option is checked, it will turn ON the WiFi radio of the mobile computer after configuring Devicescape Wireless settings.

2.2.5 Static IP

Sets the static IP addresses that the mobile device uses on the network.

Field Name	Description
Name	The name of this setting.
Adapter Name(s)	The names for the adapters.
IPv4 Address(es)	The static IP addresses.
Subnet Mask	The subnet mask.
Gateway	The gateway IP address.
DNS(s)	The DNS IP addresses.

2.2.6 Cellular Connection (APN)

Creates a cellular/APN connection on the mobile device.

Field Name	Description
Name	The name of this setting.
APN Name	The access point name. (Check **User Defined** to allow the user to enter, or to change, this information.)
Connects to	The connection setting **Internet** or **Work**.
User Name	The user name. (Check **User Defined** to allow the user to enter, or to change, this information.)
Password	The password. (Check **User Defined** to allow the user to enter, or to change, this information.)
APN URL	The access point URL/address. (Check **User Defined** to allow the user to enter, or to change, this information.)

2.3 Print Barcodes from an Existing Configuration Profile

The steps are as follows:

1. Start the MobiScan Barcode Generator
2. Select the configuration profile
3. Select the barcode print settings
4. Print the barcodes

2.3.1 Start the MobiScan Barcode Generator

On your desktop computer run MobiScan.exe.

2.3.2 Select the configuration profile

1. Click **Load Profile**.
2. Navigate to the profile that you want to use, and select it.
3. Click **Next**.

   The **Settings** screen opens. If you want to edit the profile follow the instructions in Section 2.1.3 on page 8.
4. Click **Next**.

   The **Complete: Barcode Generated** screen opens.

2.3.3 Select the barcode print settings

Click **Settings** to configure the printed barcodes.

Field Name	Description
Project Information	When selected the project information (name, version, comment, etc.) on the printed page.
Mobile Control Center Settings	When selected MCC Agent settings are printed.
Additional Settings	When selected the configuration profile settings are printed.
Page Background	When selected the page is printed with a coloured background.
Barcodes	When selected the generated barcodes are printed. **Barcode Spacing:** Can be adjusted according to preference.
Escape Characters	Here you can, optionally, add escape characters to the barcode.

2.3.4 Print the barcodes

Click **Print** to print the barcodes.

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3.1 Overview

The MobiScan Agent resides on Psion Mobile computers. The main use of the MobiScan Agent is to read configuration barcodes created by the MobiScan Barcode Generator.

3.2 Scan the Barcodes Generated by the MobiScan Barcode Generator

The steps are as follows:

1. Start the MobiScan Agent
2. Scan the barcodes

3.2.1 Start the MobiScan Agent

On the Psion mobile computer, start the MobiScan Agent:

On Windows Mobile-based devices: Click the MobiScan icon.

On Windows CE-based devices: Select **MobiScan** on the **Start** menu.

The following screen is displayed:

Options:

Field Name	Description
Reset	Clears the stored barcode data from the mobile computer.
Paste from Clipboard	MobiScan Agent has the ability to execute the contents of the clipboard as a stored barcode. The data on the clipboard is the same as the data saved is MSData.dat and from the MobiScan Barcode Generator Section 2.1 Create a Barcode Configuration Profile on page 7.
About	Displays the version and build information about the MobiScan Agent.

3.2.2 Scan the barcodes

Follow the instructions on the MobiScan Agent screen to scan the barcodes that were generated by the MobiScan Barcode Generator.

3.3 Storing Barcodes on the Mobile Computer

Whenever a barcode is scanned, an encrypted copy of its contents is automatically saved on the mobile computer. The data file MSData.dat, is stored in the PdbPkg folder.

The PdbPkg folder is located in the directory specified by the **Stable Storage** field. See Section 2.2.1 Device Agent Settings on page 8 for details.

3.4 Command Line Usage

On Windows CE-based systems, the MobiScan Agent can be launched from the command line to configure the mobile computer using a stored barcode.

Syntax:

MS_Agent.exe -[p] -[m] [File Path]

-p:	Silently execute barcode at [File Path]
-m:	Silently execute barcode at [File Path]. This option skips configuring MCC settings.

The file path may be a full path or a relative path: For example:
MobiScan.exe -p 1:\MCC\PdbPkg\MSData.dat

When MobiScan is launched in silent mode, default choices will be selected where applicable.

If the MCC Agent has already been installed on the mobile computer, MobiScan will not attempt to re-install it.

If AES256 encryption has been selected, the user is always be prompted to enter the password.